

SIM consolidation continues due to VIL's decline

RJio continues to lead in active subscriber additions aided by rural/4G additions

The Telecom Regulatory Authority of India (TRAI) has released the subscriber data for Aug'23. The key highlights are as follows:

- **VIL's churn led to a decline in active subscribers:**
 - The industry-wide **gross subscriber base** rose 2.2m MoM to 1,148m (vs. +2.7m in Jul'23). It increased for the second consecutive month after remaining flat during the last nine months. The number of VIL subscribers remained flat MoM, while RJio/Bharti added 3.2m/1.2m subscribers, resulting in a rise in the gross subscriber base.
 - The **active subscribers in the industry** decreased 3.0m MoM to 1,043m (vs. +3.6m in Jul'23). The active subscriber base has been increasing by an average of 4m per month over the last eight months. The decline was led by VIL/Bharti's churn of 3m/0.4m subscribers while RJio added 1.2m subs.
 - **Rural subscribers:** The number of rural subscribers grew 1.3m MoM (vs. +0.2m in Jul'23) to 519m. RJio/Bharti added 1.6m/0.7m subs (vs. +2m/-0.5m in Jul'23), while VIL/BSNL lost 0.3m/0.6m subs (vs. -0.7m/-0.6m in Jul'23). RJio continued to lead in rural markets with a 37.8% share (+20bp MoM), followed by Bharti at 35.0% (+10bp MoM) and VIL at 21.4% (-10bp MoM).
 - **4G subscriber additions accelerate:** The industry added 7.6m 4G subs (vs. 6.1m additions in Jul'23), to reach 839m (80% of active subscribers) after subdued additions of 4.6m per month on an average for the last one year. RJio/ Bharti added 3.2m/2.6m subs in Aug'23. VIL added 1.3m 4G subs in Aug'23 (vs. -0.6m in Jul'23).
- **Mobile number portability (MNP):** Total requests for MNP have been consistently increasing, validated by a higher churn and SIM consolidation. The number of MNP requests in Aug'23 stood at 12.7m (vs. 11.8 in Jul'23), representing 1.2% of the total active subscribers.
- **Bharti continued to add** 1.2m gross subscribers (vs. +1.5m in Jul'23). It lost 0.4m active subscribers in Aug'23 (+3.2m in Jul'23); however, its active market share increased 10bp to 36% due to higher VIL churn. The company's 4G subscriber additions stood at 2.6m (vs. +2.9m in Jul'23), taking its total 4G subscriber base to 247m.
- **RJio continued to stand out** with gross/active subscriber additions of 3.2m/1.2m MoM (vs. +3.9m/1.4m in Jul'23). This increased its active market share to 40% (+30bp MoM, the highest in the industry). Its 4G subscriber additions stood at 3.2m MoM (vs. +3.9m in Jul'23).
- **VIL continued to witness churn** with a flat/2.9m MoM decline in gross/active subscribers to 228m/199m (vs. a decline of 1.3m/0.4m in Jul'23). Its 4G subscriber base increased 1.3m MoM (vs. -0.6m in Jul'23) to 126m. It maintained its 4G market share to 15% in Aug'23 (+10bp MoM). Its 4G subscriber count has been flat for the last five months.
- **Wired broadband subscribers** for the industry increased 0.7m MoM to 36.4m in Aug'23. RJio/Bharti added 190k/160k subscribers MoM (vs. 230k/ 170k adds in Jul'23). BSNL's net subscribers rose 30k (vs. +20k in Jul'23).

Aliasgar Shakir - Research Analyst (Aliasgar.Shakir@motilaloswal.com)

Research Analyst: Tanmay Gupta (Tanmay.Gupta@motilaloswal.com) | Harsh Gokalgandhi (Harsh.Gokalgandhi@motilaloswal.com)

Investors are advised to refer through important disclosures made at the last page of the Research Report.

Motilal Oswal research is available on www.motilaloswal.com/Institutional-Equities, Bloomberg, Thomson Reuters, Factset and S&P Capital.

Exhibit 1: Active subscriber base declined due to VIL churn

Active subscriber base (m)	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
Bharti	356	359	358	359	365	366	367	370	370	373	373	376	376
VIL	215	212	212	210	210	209	208	208	207	205	203	202	199
RJio	385	386	391	388	391	394	398	403	407	412	414	416	417
Top Three players	957	957	961	957	966	970	973	980	985	990	990	994	992
Other players	58	57	52	56	55	55	55	54	54	53	53	52	51
Total	1015	1014	1013	1012	1021	1025	1028	1034	1038	1043	1043	1046	1043

Source: TRAI, MOFSL

Exhibit 2: RJio added the highest active subscribers; VIL/Bharti declined

Active subscriber net adds (m)	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
Bharti	0.3	2.5	-1.0	1.0	6.0	1.3	0.8	2.5	0.7	2.4	0.1	3.2	-0.4
VIL	-1.7	-3.0	-0.5	-2.0	-0.1	-0.5	-0.8	-0.5	-0.8	-1.8	-2.5	-0.4	-2.9
RJio	3.0	0.9	4.9	-3.0	3.0	3.5	3.2	5.0	4.7	4.9	2.3	1.4	1.2
Top Three players	1.6	0.4	3.5	-4.0	8.8	4.4	3.2	7.0	4.6	5.5	-0.1	4.2	-2.1
Other players	-0.3	-0.9	-4.6	3.5	-0.3	-0.4	-0.4	-0.3	-0.4	-0.5	-0.5	-0.6	-0.9
Total	1.3	-0.6	-1.1	-0.5	8.6	3.9	2.8	6.7	4.2	5.0	-0.5	3.6	-3.0

Source: TRAI, MOFSL

Exhibit 3: In active subscriber market share (in %), RJio retained the pole position; Bharti increased while VIL declined

Active subscriber market share	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
Bharti	35.1	35.4	35.3	35.5	35.8	35.7	35.7	35.7	35.7	35.7	35.7	35.9	36.0
VIL	21.2	20.9	20.9	20.7	20.5	20.4	20.3	20.1	19.9	19.7	19.4	19.3	19.1
RJio	38.0	38.1	38.6	38.3	38.3	38.5	38.7	38.9	39.2	39.5	39.7	39.7	40.0
Top Three players	94.3	94.4	94.9	94.5	94.6	94.6	94.7	94.8	94.8	94.9	94.9	95.0	95.1
Other players	5.7	5.6	5.1	5.5	5.4	5.4	5.3	5.2	5.2	5.1	5.1	5.0	4.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: TRAI, MOFSL

Exhibit 4: Gross subscribers picked up for the second consecutive quarter after remaining flat for the last nine months

Gross subscriber base (m)	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
Bharti	364	364	365	366	368	369	370	371	371	372	374	375	376
VIL	253	249	246	244	241	240	238	237	234	231	230	228	228
RJio	419	420	421	423	425	426	427	430	433	436	439	442	446
Top Three players	1036	1033	1032	1033	1033	1035	1035	1038	1038	1040	1042	1046	1050
Other players	113	112	112	110	109	108	107	106	105	104	102	100	98
Total	1149	1145	1144	1143	1143	1143	1142	1144	1143	1143	1144	1146	1148

Source: TRAI, MOFSL

Exhibit 5: Within gross subscribers, RJio/Bharti gained while VIL was flat

Gross subscriber net adds (m)	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
Bharti	0.3	0.4	0.8	1.1	1.5	1.3	1.0	1.0	0.1	1.3	1.4	1.5	1.2
VIL	-2.0	-4.0	-3.5	-1.8	-2.5	-1.4	-2.0	-1.2	-3.0	-2.8	-1.3	-1.3	0.0
RJio	3.3	0.7	1.4	1.4	1.7	1.7	1.0	3.1	3.0	3.0	2.3	3.9	3.2
Top Three players	1.6	-2.9	-1.3	0.7	0.8	1.6	0.0	2.9	0.1	1.6	2.4	4.1	4.4
Other players	-0.6	-0.8	-0.5	-1.2	-0.9	-1.5	-1.0	-0.9	-0.9	-1.5	-2.0	-1.4	-2.2
Total	1.1	-3.7	-1.8	-0.6	-0.1	0.1	-1.1	2.0	-0.8	0.1	0.4	2.7	2.2

Source: TRAI, MOFSL

Exhibit 6: RJio continued to gain market share

Gross subscriber market share (%)	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
Bharti	31.7	31.8	31.9	32.0	32.2	32.3	32.4	32.4	32.5	32.6	32.7	32.7	32.8
VIL	22.0	21.7	21.5	21.3	21.1	21.0	20.8	20.7	20.4	20.2	20.1	19.9	19.9
RJio	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.9	38.2	38.4	38.6	38.8
Top Three players	90.2	90.2	90.2	90.3	90.4	90.6	90.6	90.7	90.8	90.9	91.1	91.3	91.5
Other players	9.8	9.8	9.8	9.7	9.6	9.4	9.4	9.3	9.2	9.1	8.9	8.7	8.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: TRAI, MOFSL

Exhibit 7: 4G subscriber base continued to increase

MBB subscriber base (m)	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
Bharti	219	220	223	225	229	232	234	236	238	240	242	244	247
VIL	123	123	123	124	124	125	124	125	124	124	125	124	126
RJio	419	420	421	423	425	426	427	430	433	436	439	442	446
Top Three players	761	763	768	772	777	783	785	791	795	800	805	811	818
Other players	21	21	22	21	22	22	21	21	21	21	20	20	21
Total	782	784	789	792	799	805	805	812	816	821	825	832	839

Source: TRAI, MOFSL

Exhibit 8: Incremental 4G subscriber additions continued to be the highest for RJio

MBB subscriber net adds (m)	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
Bharti	1.7	1.0	3.0	2.2	3.8	2.8	2.2	2.0	2.3	2.1	1.3	2.9	2.6
VIL	0.2	0.1	0.2	0.3	0.2	1.1	-1.3	1.1	-1.3	0.0	1.3	-0.6	1.3
RJio	3.3	0.7	1.4	1.4	1.7	1.7	1.0	3.1	3.0	3.0	2.3	3.9	3.2
Top Three players	5.2	1.8	4.6	3.9	5.6	5.6	1.9	6.2	4.1	5.2	4.9	6.2	7.1
Other players	0.5	-0.3	0.5	-0.6	0.6	0.6	-1.5	0.4	0.0	0.2	-0.9	-0.1	0.5
Total	5.7	1.5	5.1	3.4	6.2	6.2	0.5	6.6	4.1	5.3	4.0	6.1	7.6

Source: TRAI, MOFSL

Exhibit 9: 4G subscriber market share

MBB subscriber market share	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
Bharti	28.0	28.0	28.2	28.4	28.6	28.8	29.0	29.0	29.2	29.2	29.3	29.4	29.4
VIL	15.7	15.7	15.6	15.6	15.5	15.5	15.4	15.4	15.1	15.0	15.1	14.9	15.0
RJio	53.6	53.6	53.4	53.4	53.2	52.9	53.0	53.0	53.1	53.1	53.1	53.2	53.1
Top Three players	97.3	97.3	97.3	97.4	97.3	97.2	97.4	97.4	97.4	97.4	97.5	97.6	97.5
Other players	2.7	2.7	2.7	2.6	2.7	2.8	2.6	2.6	2.6	2.6	2.5	2.4	2.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: TRAI, MOFSL

Exhibit 10: MNP continued to increase, leading to SIM consolidation

Mobile Number Portability (m)	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
Request submitted	11.4	12.0	11.8	12.0	12.5	12.4	11.2	11.7	11.0	11.5	10.9	11.8	12.7
Cumulative request submitted	736.1	748.1	759.9	771.9	784.4	796.8	808.0	819.7	830.7	842.1	853.0	864.8	877.4
% to active subscribers	1.1%	1.2%	1.2%	1.2%	1.2%	1.2%	1.1%	1.1%	1.1%	1.1%	1.0%	1.1%	1.2%

Source: TRAI, MOFSL

NOTES

Explanation of Investment Rating	
Investment Rating	Expected return (over 12-month)
BUY	>=15%
SELL	< - 10%
NEUTRAL	< - 10 % to 15%
UNDER REVIEW	Rating may undergo a change
NOT RATED	We have forward looking estimates for the stock but we refrain from assigning recommendation

*In case the recommendation given by the Research Analyst is inconsistent with the investment rating legend for a continuous period of 30 days, the Research Analyst shall be within following 30 days take appropriate measures to make the recommendation consistent with the investment rating legend.

Disclosures

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations).

Motilal Oswal Financial Services Ltd. (MOFSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOFSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Depository participant services & distribution of various financial products. MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOFSL (erstwhile Motilal Oswal Securities Limited - MOSL) is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Multi Commodity Exchange of India Limited (MCX) and National Commodity & Derivatives Exchange Limited (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) National Securities Depository Limited (NSDL), NERL, COMRIS and CCRL and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Limited are available on the website at <http://online-reports.motilaloswal.com/Dormant/documents/List%20of%20Associate%20companies.pdf>

MOFSL and its associate company(ies), their directors and Research Analyst and their relatives may; (a) from time to time, have a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein. (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.

MOFSL and / or its affiliates do and seek to do business including investment banking with companies covered in its research reports. As a result, the recipients of this report should be aware that MOFSL may have a potential conflict of interest that may affect the objectivity of this report. Compensation of Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions. Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at <https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx>

A graph of daily closing prices of securities is available at www.nseindia.com, www.bseindia.com. Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOFSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOFSL research activity and therefore it can have an independent view with regards to Subject Company for which Research Team have expressed their views.

Regional Disclosures (outside India)

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL & its group companies to registration or licensing requirements within such jurisdictions.

For Hong Kong:

This report is distributed in Hong Kong by Motilal Oswal capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Securities (SEBI Reg. No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution of research report in Hong Kong. This report is intended for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or investment activity to which this document relates is only available to professional investor and will be engaged only with professional investors." Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.

For U.S.

Motilal Oswal Financial Services Limited (MOFSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the "1934 act") and under applicable state laws in the United States. In addition MOFSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act" and together with the 1934 Act, the "Acts"), and under applicable state laws in the United States. Accordingly, in the absence of specific exemption under the Acts, any brokerage and investment services provided by MOFSL, including the products and services described herein are not available to or intended for U.S. persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. Any investment or investment activity to which this document relates is only available to major institutional investors and will be engaged in only with major institutional investors. In reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S., MOFSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

The Research Analysts contributing to the report may not be registered/qualified as research analyst with FINRA. Such research analyst may not be associated persons of the U.S. registered broker-dealer, MOSIPL, and therefore, may not be subject to NASD rule 2711 and NYSE Rule 472 restrictions on communication with a subject company, public appearances and trading securities held by a research analyst account.

For Singapore

In Singapore, this report is being distributed by Motilal Oswal Capital Markets Singapore Pte Ltd ("MOCMSPL") (Co. Reg. NO. 201129401Z) which is a holder of a capital markets services license and an exempt financial adviser in Singapore. As per the approved agreement under Paragraph 9 of Third Schedule of Securities and Futures Act (CAP 289) and Paragraph 11 of First Schedule of Financial Advisers Act (CAP 110) provided to MOCMSPL by Monetary Authority of Singapore. Persons in Singapore should contact MOCMSPL in respect of any matter arising from, or in connection with this report/publication/communication. This report is distributed solely to persons who qualify as "Institutional Investors", of which some of whom may consist of "accredited" institutional investors as defined in section 4A(1) of the Securities and Futures Act, Chapter 289 of Singapore ("the SFA"). Accordingly, if a Singapore person is not or ceases to be such an institutional investor, such Singapore Person must immediately discontinue any use of this Report and inform MOCMSPL.

Specific Disclosures

- 1 MOFSL, Research Analyst and/or his relatives does not have financial interest in the subject company, as they do not have equity holdings in the subject company.
- 2 MOFSL, Research Analyst and/or his relatives do not have actual/beneficial ownership of 1% or more securities in the subject company
- 3 MOFSL, Research Analyst and/or his relatives have not received compensation/other benefits from the subject company in the past 12 months
- 4 MOFSL, Research Analyst and/or his relatives do not have material conflict of interest in the subject company at the time of publication of research report
- 5 Research Analyst has not served as director/officer/employee in the subject company
- 6 MOFSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- 7 MOFSL has not received compensation for investment banking/ merchant banking/brokerage services from the subject company in the past 12 months
- 8 MOFSL has not received compensation for other than investment banking/merchant banking/brokerage services from the subject company in the past 12 months
- 9 MOFSL has not received any compensation or other benefits from third party in connection with the research report
- 10 MOFSL has not engaged in market making activity for the subject company

The associates of MOFSL may have:

- financial interest in the subject company
- actual/beneficial ownership of 1% or more securities in the subject company at the end of the month immediately preceding the date of publication of the Research Report or date of the public appearance.
- received compensation/other benefits from the subject company in the past 12 months
- any other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.
- acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies)
- received compensation from the subject company in the past 12 months for investment banking / merchant banking / brokerage services or from other than said services.
- Served subject company as its clients during twelve months preceding the date of distribution of the research report.

The associates of MOFSL has not received any compensation or other benefits from third party in connection with the research report

Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, It does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e holding client securities, collaterals, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures.

Analyst Certification

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issues, and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations and views expressed by research analyst(s) in this report.

Terms & Conditions:

This report has been prepared by MOFSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOFSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information is obtained from publicly available media or other sources believed to be reliable. Such information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOFSL will not treat recipients as customers by virtue of their receiving this report.

Disclaimer:

The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval. MOFSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOFSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, not its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOFSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOFSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOFSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays.

This report is meant for the clients of Motilal Oswal only.

Investment in securities market are subject to market risks. Read all the related documents carefully before investing.

Registration granted by SEBI and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022 - 71934200 / 71934263; www.motilaloswal.com.

Correspondence Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad (West), Mumbai- 400 064. Tel No: 022 71881000. Details of Compliance Officer: Neeraj Agarwal,

Email Id: na@motilaloswal.com, Contact No.:022-40548085.

Grievance Redressal Cell:

Contact Person	Contact No.	Email ID
Ms. Hemangi Date	022 40548000 / 022 67490600	query@motilaloswal.com
Ms. Kumud Upadhyay	022 40548082	servicehead@motilaloswal.com
Mr. Ajay Menon	022 40548083	am@motilaloswal.com

Registration details of group entities.: Motilal Oswal Financial Services Ltd. (MOFSL): INZ000158836 (BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412 . AMFI: ARN : 146822. IRDA Corporate Agent – CA0579. Motilal Oswal Financial Services Ltd. is a distributor of Mutual Funds, PMS, Fixed Deposit, Insurance, Bond, NCDs and IPO products.

Customer having any query/feedback/ clarification may write to query@motilaloswal.com. In case of grievances for any of the services rendered by Motilal Oswal Financial Services Limited (MOFSL) write to grievances@motilaloswal.com, for DP to dpgrievances@motilaloswal.com.